### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

#### (19) World Intellectual Property Organization International Bureau



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(43) International Publication Date 21 April 2005 (21.04.2005)

(10) International Publication Number WO 2005/035569 A3

- (51) International Patent Classification: C07K 14/47 (2006.01)
- (21) International Application Number:

PCT/US2004/033408

- (22) International Filing Date: 12 October 2004 (12.10.2004)
- (25) Filing Language:

English

(26) Publication Language:

English

- (30) Priority Data: 10 October 2003 (10.10.2003) US 60/510,612
- (71) Applicant (for all designated States except US): FIVE PRIME THERAPEUTICS, INC. [US/US]; 951 Gateway

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO. CR. CU. CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,

(7.1) Appurent (or au aesignates states except U.S.; FIVE PRIME THERAPPUTICS, INC. [USUS]; 951 Gateway Boulevard, South San Francisco, CA 94080 (US).

(7.2) Inventors; and (7.5) Inventors/Applicants (for US only): WONG, Justin, G., P. [US/US]; 395 Somerset Road, Apartment 3, Oakland, CA 94611 (US). HESTIR, Kevin [US/US]; 226 Arlington Avenue, Kensington, CA 94707 (US). COLLINS, Amy, L., Tsul [US/US]; 5955 Girvin Drive, Oakland, CA 94611 (US).

(7.4) Agent: GARRETT, Arthur, S.; Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P., 901 New York Avenue, NW, Washington, D.C. 20001-4413 (US).

(7.4) Agent: GARRETT, Arthur, S.; Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P., 901 New York Avenue, NW, Washington, D.C. 20001-4413 (US).

(7.5) Title: KIAA0779, SPLICE VARIANTS THEREOF, AND METHODS OF THEIR USE

(8.7) And the expiration of the time limit for amending the expiration of the time limit for amending the expiration of the international search report: of amendments

(8.7) Date of publication of the international search report: Provident and Share and use these polynucleotides, polypeptides, related compositions, and modulators. These methods include diagnostic, prophylactic, and therapeutic applications. The compositions and methods of the invention are useful in treating proliferative disorders, e.g., cancers, such as kidney and pancreatic cancer; and inflammatory, immune, and viral disorders.

#### INTERNATIONAL SEARCH REPORT

Inter nal Application No PCT/US2004/033408

| a. classification of subject matter C07K14/47   |   |   |                       |  |  |
|---|---|---|-----------------------|--|--|
|   |   |   |                       |  |  |
| According to  | According to International Patent Classification (IPC) or to both national classification and IPC   |   |                       |  |  |
| B. FIELDS   | SEARCHED  |   |                       |  |  |
| Minimum do  | cumentation searched (classification system followed by classification CO7K   | n symbols)  | ,                     |  |  |
|   | CO/K  |   |                       |  |  |
|   | the cut of | and documents are included in the fields core   | phod                  |  |  |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched   |   |   |                       |  |  |
| Electronic data base consulted during the international search (name of data base and, where practical, search terms used)  |   |   |                       |  |  |
|   | -   |   |                       |  |  |
| FLO-1u  | ternal, Sequence Search, WPI Data, B  | 10515, EMBASE, MEDITINE   |                       |  |  |
|   | •   |   |                       |  |  |
|   |   |   |                       |  |  |
|   | DOCUMENTS CONSIDERED TO BE RELEVANT   |   |                       |  |  |
| Category °  | Citation of document, with indication, where appropriate, of the rele   | vam passages  | Relevant to claim No. |  |  |
| X   | DATABASE Geneseq 'Online!   |   | 1-10,14,              |  |  |
| <b>^</b>  | 6 November 2001 (2001-11-06). "Hu   | man   | 16,17,                |  |  |
|   | polynucleotide SEQ ID NO 800."  | *   | 27,29,                |  |  |
|   | XP002331290   |   | 31-33                 |  |  |
|   | retrieved from EBI accession no.<br>GSN:AAI80740  | ·  ·  |                       |  |  |
|   | Database accession no. AAI80740   | •   |                       |  |  |
|   | abstract  |   | ,                     |  |  |
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|   |   |   |                       |  |  |
| X Funt  | her documents are listed in the continuation of box C.  | Patent family members are listed in   | annex.                |  |  |
| * Special ca  | tegories of cited documents :   | "T" later document published after the intern<br>or priority date and not in conflict with th | ational filing date   |  |  |
| *A* docume  | ent defining the general state of the art which is not<br>dered to be of particular relevance   | cited to understand the principle or theo<br>invention  | ry underlying lite    |  |  |
| "E" earlier o   | document but published on or after the international  | "X" document of particular relevance; the cla   | imed invention        |  |  |
| filing o  | ent which may throw doubts on priority claim(s) or  | cannot be considered novel or cannot b<br>involve an inventive step when the docu             | ment is taken alone   |  |  |
| which is cited to establish the publication date of another citation or other special reason (as specified)  "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the |   |   | ntive step when the   |  |  |
| *O* document referring to an oral disclosure, use, exhibition or other means document is combined with one or more other such document, such combination being obvious to a person skilled in the art.                              |   |   |                       |  |  |
| "P" docume<br>later th  | ent published prior to the international filing date but<br>nan the priority date claimed   | "&" document member of the same patent fa   | mily                  |  |  |
| Date of the actual completion of the international search  Date of mailing of the international search report   |   |   | h report              |  |  |
| 20 June 2005  |   | 2 0. 12. 2005   |                       |  |  |
| Name and mailing address of the ISA Authorized officer  |   |   |                       |  |  |
| European Patent Office, P.B. 5818 Patentlaan 2<br>NL - 2280 HV Rijswijk   |   |   | -                     |  |  |
|   | Tel. (+31-70) 340-2040, Тх. 31 651 еро пі,<br>Fax: (+31-70) 340-3016  | Young, C  |                       |  |  |

## INTERNATIONAL SEARCH REPORT

Intermenal Application No PCT/US2004/033408

| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT |  |                                       |  |
|--|--|---------------------------------------|--|
| Category   | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No.                 |  |
| X  | DATABASE EMBL 'Online! 15 November 2002 (2002-11-15), "Homo sapiens transmembrane and coiled-coil domains 1, transcript variant 1, mRNA (cDNA clone MGC:48954 IMAGE:5527623), complete cds." XP002331291 retrieved from EBI accession no. EM_PRO:BC039859 Database accession no. BC039859 abstract | 1-10,14,<br>16,17,<br>27,29,<br>31-33 |  |
| <b>X</b>   | DATABASE UniProt 'Online! 16 October 2001 (2001-10-16), "Transmembrane and coiled-coil domains protein 1." XP002331292 retrieved from EBI accession no. UNIPROT:TMCC1_HUMAN Database accession no. TMCC1_HUMAN abstract  | 1-10,14,<br>16,17,<br>27,29,<br>31-33 |  |
| X  | PNAS, 24 December 2002 (2002-12-24), XP002245220  the whole document   | 1-10,14,<br>16,17,<br>27,29,<br>31-33 |  |
| X  | DATABASE EMBL 'Online! 9 September 1999 (1999-09-09), "wt80d04.x1 Soares_thymus_NHFTh Homo sapiens cDNA clone IMAGE:2513767 3', mRNA sequence." XP002331293 retrieved from EBI accession no. EM_PR0:A1989368 Database accession no. A1989368 abstract  | 1-10,14,<br>16,17,<br>27,29,<br>31-33 |  |
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International application No. PCT/US2004/033408

## INTERNATIONAL SEARCH REPORT

| Box II Observations where certain claims were found unsearchable (Continuation of Item 2 of Itrst sneet)  |  |  |  |
|---|--|--|--|
| This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:  |  |  |  |
| Claims Nos.:     because they relate to subject matter not required to be searched by this Authority, namely:   |  |  |  |
| 2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:   |  |  |  |
| Claims Nos.:     because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).  |  |  |  |
| Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)  |  |  |  |
| This International Searching Authority found multiple inventions in this international application, as follows:   |  |  |  |
| see additional sheet  |  |  |  |
| As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.  |  |  |  |
| As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.  |  |  |  |
| 3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:   |  |  |  |
| 4. X No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  1-10, 14, 16, 17, 27, 29, 31, 32, 33 (partially) |  |  |  |
| Remark on Protest  The additional search fees were accompanied by the applicant's protest.  No protest accompanied the payment of additional search fees.   |  |  |  |

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

- claims: 1-10, 14,16,17, 27,29,31,32,33 (partially)
   claims relating to the polynucleotide represented by SEQ ID NO.1
- 2. claims: 1-10, 14,16,17, 27,29,31,32,33 (partially)
  claims relating to the polynucleotide represented by SEQ ID NO. 2
- 3. claims: 1-10, 14,16,17, 27,29,31,32,33 (partially)

  claims relating to the polynucleotide represented by SEQ ID NO. 4
- 4. claims: 1-10, 14,16,17, 27,29,31,32,33 (partially)

  claims relating to the polynucleotide represented by SEQ IDNO. 5
- 5. claims: 1-10, 14, 16, 17, 27, 29, 31, 32, 33 (partially) claims relating to the polynucleotide represented by SEQ ID NO. 31
- 6. claims: 1-10, 14,16,17, 27,29,31,32,33 (partially)

  claims relating to the polynucleotide represented by SEQ ID

  NO. 32
- 7. claims: 1-10, 14,16,17, 27,29,31,32,33 (partially)

  claims relating to the polynucleotide represented by SEQ ID NO. 35
- 8. claims: 1-10, 14,16,17, 27,29,31,32,33 (partially)

  claims relating to the polynucleotide represented by SEQ ID

  NO. 36
- 9. claims: 11-13,15,18-26,28,30,33-51(partially) claims relating to the polypeptide represented by SEQ ID NO.

- 10. claims: 11-13,15,18-26,28,30,33-51(partially)

  claims relating to the polypeptide represented by SEQ ID NO.
- 11. claims: 11-13,15,18-26,28,30,33-51(partially)

  claims relating to the polypeptide represented by SEQ ID NO.
- 12. claims: 11-13,15,18-26,28,30,33-51(partially)

  claims relating to the polypeptide represented by SEQ ID NO.
- 13. claims: 11-13,15,18-26,28,30,33-51(partially)

  claims relating to the polypeptide represented by SEQ ID NO.
  12
- 14. claims: 11-13,15,18-26,28,30,33-51(partially)

  claims relating to the polypeptide represented by SEQ ID NO.
  13
- 15. claims: 11-13,15,18-26,28,30,33-51(partially)

  claims relating to the polypeptide represented by SEQ ID NO. 14
- 16. claims: 11-13,15,18-26,28,30,33-51(partially)

  claims relating to the polypeptide represented by SEQ ID NO.
  15
- 17. claims: 11-13,15,18-26,28,30,33-51(partially)

  claims relating to the polypeptide represented by SEQ ID NO.
  16
- 18. claims: 11-13,15,18-26,28,30,33-51(partially)

  claims relating to the polypeptide represented by SEQ ID NO.

- 19. claims: 11-13,15,18-26,28,30,33-51(partially)

  claims relating to the polypeptide represented by SEQ ID NO.
  18
- 20. claims: 11-13,15,18-26,28,30,33-51(partially)

  claims relating to the polypeptide represented by SEQ ID NO. 19
- 21. claims: 11-13,15,18-26,28,30,33-51(partially) claims relating to the polypeptide represented by SEQ ID NO. 20
- 22. claims: 11-13,15,18-26,28,30,33-51(partially) claims relating to the polypeptide represented by SEQ ID NO. 21
- 23. claims: 11-13,15,18-26,28,30,33-51(partially)

  claims relating to the polypeptide represented by SEQ ID NO. 22
- 24. claims: 11-13,15,18-26,28,30,33-51(partially)

  claims relating to the polypeptide represented by SEQ ID NO.
- 25. claims: 11-13,15,18-26,28,30,33-51(partially)

  claims relating to the polypeptide represented by SEQ ID NO. 24
- 26. claims: 11-13,15,18-26,28,30,33-51(partially)

  claims relating to the polypeptide represented by SEQ ID NO. 25
- 27. claims: 11-13,15,18-26,28,30,33-51(partially)

  claims relating to the polypeptide represented by SEQ ID NO.

- 28. claims: 11-13,15,18-26,28,30,33-51(partially)

  claims relating to the polypeptide represented by SEQ ID NO.
- 29. claims: 11-13,15,18-26,28,30,33-51(partially)

  claims relating to the polypeptide represented by SEQ ID NO.
- 30. claims: 11-13,15,18-26,28,30,33-51(partially)

  claims relating to the polypeptide represented by SEQ ID NO. 29
- 31. claims: 11-13,15,18-26,28,30,33-51(partially) claims relating to the polypeptide represented by SEQ ID NO. 30

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